

**Notice of Allowability**

Application No.

10/849,022

Applicant(s)

KIBA ET AL.

Examiner

Art Unit

Matthew Bradley

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 23 April 2007.
2. ☒ The allowed claim(s) is/are 1,3,5,6,8,10 and 11.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

This Office Action has been issued in response to amendment filed 23 April 2007.

### ***Claim Status***

Claims 1, 3, 5-6, 8, and 10-11 remain pending and are ready for examination.

### ***Examiner's Comment***

The drawing amendments submitted on 23 April 2007 need to be corrected because they contain the amendment of "flushing". In the Office Action mailed 22 February 2007, the Examiner indicated that the claims recited the word "flush" and the specification as well as the drawings recited the word "flash". The Examiner made all three objections in an attempt to point out the inconsistency that was present. The instant amendments to the specification and claims brought them into harmony, but the amendments to the drawings were not consistent. The Examiner recommends amending the drawings, Figures 2 and 3 specifically, to say "flashing" such that the claims, specification, and drawings are all in sync.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

The objection to the drawings will not be held in abeyance.

#### **EXAMINER'S AMENDMENT**

In Applicant's response filed 23 April 2007, Applicant's appear to amend the title. Please amend the title to read "CACHE FLASH BASED ON CHECKPOINT TIMER."

#### ***Allowable Subject Matter***

Claims 1, 3, 5-6, 8, and 10-11 are allowed.

The following is an Examiner's statement of reasons for allowance: the prior art made of record teaches a cache control method, but fails to teach the combination including the limitation of:

(Claim 1) "...wherein said synchronous point processing unit makes and sends a write request of updated data held in the memory medium of data processed by the program in a write-through mode to update data of the program unreflected upon said disk device, issues a flash command to said storage unit in order to reflect the updated data upon the memory medium at a timing synchronous with a commitment to perform a

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transaction process, and makes and sends a write-request, in the write-through mode, to said storage unit for requesting write of a synchronous point journal which records, in the storage unit, completion of a synchronous point process until a check point from said computer to said storage unit, ...”;

(Claim 6) “...wherein said synchronous point processing section makes and sends a write request of updated data held in the memory medium of data processed by the program in a write-through mode to update data of the program unreflected upon said disk device, issues a flash command to said storage unit in order to reflect the updated data upon the memory medium at a timing synchronous with a commitment to perform a transaction process, and makes and sends a write request, in the write-through mode, to said storage unit for requesting write of a synchronous point journal which records, in the storage unit, completion of a synchronous point process until a check point from said computer to said storage unit, ...”;

(Claim 11) “...in said synchronous point processing section making and sending a write request of updated data held in the memory medium of data processed by the program in a write-through mode, thereby to update data of the program unreflected upon said disk device, issuing a flash command to said storage unit in order to reflect the updated data upon the memory medium at a timing synchronous with a commitment to perform a transaction process, onto said memory medium, and making and sending a write request, in the write-through mode, to said storage unit for requesting write of a synchronous point journal which records, in the storage unit, completion of a

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synchronous point process until a check point from said computer to said storage unit,  
...”;

As dependent claims **3, 5, 8, and 10** depend from an allowable base claim; they are at least allowable for the same reasons as noted *supra*.

The prior art made of record neither anticipates nor renders obvious the above-recited combinations for at least the reasons specified and as shown in Applicant's Arguments filed 24 November 2006.

The claims have been renumbered as following:

Original	1	3	5	6	8	10	11
Final	1	2	3	4	5	6	7

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew Bradley whose telephone number is (571) 272-8575. The examiner can normally be reached on 6:30-3:00 M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald A. Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DAS/mb

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DONALD SPARKS  
SUPERVISORY PATENT EXAMINER